```
FILE 'CAPLUS, WPIX, JAPIO, COMPENDEX' ENTERED AT 14:50:08 ON 10 SEP 2005
L14
         745224 SEA ABB=ON PLU=ON GLASS?
L15
         408780 SEA ABB=ON
                          PLU=ON
                                   GLASS?
L16
         205077 SEA ABB=ON PLU=ON
                                   GLASS?
L17
         167899 SEA ABB=ON PLU=ON GLASS?
     TOTAL FOR ALL FILES
L18
        1526980 SEA ABB=ON PLU=ON GLASS?
L19
          35475 SEA ABB=ON PLU=ON
                                   (?ACRYL? (10A) (?ISOCYANAT? OR ?URETHAN?))
L20
          30286 SEA ABB=ON PLU=ON
                                  (?ACRYL? (10A) (?ISOCYANAT? OR ?URETHAN?))
L21
          7637 SEA ABB=ON PLU=ON (?ACRYL? (10A) (?ISOCYANAT? OR ?URETHAN?))
L22
          1877 SEA ABB=ON PLU=ON (?ACRYL? (10A) (?ISOCYANAT? OR ?URETHAN?))
     TOTAL FOR ALL FILES
         75275 SEA ABB=ON PLU=ON (?ACRYL? (10A) (?ISOCYANAT? OR ?URETHAN?))
L23
L24
        1284986 SEA ABB=ON PLU=ON (ALUMINA? OR SILICA? OR TITANIA? OR
                (OXIDE? (10A) (ALUMINUM OR AL OR SI OR SILICON OR TITANIUM OR
                TI OR ZINC OR ZN OR FE OR IRON)))
L25
         373188 SEA ABB=ON PLU=ON (ALUMINA? OR SILICA? OR TITANIA? OR
                (OXIDE? (10A) (ALUMINUM OR AL OR SI OR SILICON OR TITANIUM OR
                TI OR ZINC OR ZN OR FE OR IRON)))
L26
         153541 SEA ABB=ON PLU=ON (ALUMINA? OR SILICA? OR TITANIA? OR
                (OXIDE? (10A) (ALUMINUM OR AL OR SI OR SILICON OR TITANIUM OR
                TI OR ZINC OR ZN OR FE OR IRON)))
         180659 SEA ABB=ON PLU=ON (ALUMINA? OR SILICA? OR TITANIA? OR
L27
                (OXIDE? (10A) (ALUMINUM OR AL OR SI OR SILICON OR TITANIUM OR
                TI OR ZINC OR ZN OR FE OR IRON)))
     TOTAL FOR ALL FILES
L28
        1992374 SEA ABB=ON PLU=ON (ALUMINA? OR SILICA? OR TITANIA? OR
                (OXIDE? (10A) (ALUMINUM OR AL OR SI OR SILICON OR TITANIUM OR
                TI OR ZINC OR ZN OR FE OR IRON)))
L29
           5024 SEA ABB=ON PLU=ON L14 AND L19
L30
           5016 SEA ABB=ON PLU=ON L15 AND L20
            722 SEA ABB=ON PLU=ON L16 AND L21
L31
L32
            270 SEA ABB=ON PLU=ON L17 AND L22
     TOTAL FOR ALL FILES
L33
          11032 SEA ABB=ON PLU=ON L18 AND L23
            627 SEA ABB=ON PLU=ON L29 AND L24
L34
L35
           1105 SEA ABB=ON PLU=ON L30 AND L25
L36
             47 SEA ABB=ON PLU=ON L31 AND L26
L37
              6 SEA ABB=ON PLU=ON L32 AND L27
     TOTAL FOR ALL FILES
L38
          1785 SEA ABB=ON PLU=ON L33 AND L28
           149 SEA ABB=ON PLU=ON L34 AND ?PARTIC?
L39
L40
            525 SEA ABB=ON PLU=ON L35 AND ?PARTIC?
L41
            13 SEA ABB=ON PLU=ON L36 AND ?PARTIC?
             1 SEA ABB=ON PLU=ON L37 AND ?PARTIC?
L42
     TOTAL FOR ALL FILES
L43
           688 SEA ABB=ON PLU=ON L38 AND ?PARTIC?
L44
            659 DUP REM L43 (29 DUPLICATES REMOVED)
           3214 SEA ABB=ON PLU=ON (SAFETY (5A) GLASS?)
L45
                                   (SAFETY (5A) GLASS?)
           2131 SEA ABB=ON PLU=ON
L46
            424 SEA ABB=ON PLU=ON (SAFETY (5A) GLASS?)
L47
L48
           308 SEA ABB=ON PLU=ON (SAFETY (5A) GLASS?)
     TOTAL FOR ALL FILES
L49
          6077 SEA ABB=ON PLU=ON (SAFETY (5A) GLASS?)
L50
          3214 SEA ABB=ON PLU=ON (SAFETY? (5A) GLASS?)
          2131 SEA ABB=ON PLU=ON (SAFETY? (5A) GLASS?)
L51
L52
           424 SEA ABB=ON PLU=ON (SAFETY? (5A) GLASS?)
```

```
L53
           308 SEA ABB=ON PLU=ON (SAFETY? (5A) GLASS?)
     TOTAL FOR ALL FILES
L54
          6077 SEA ABB=ON PLU=ON
                                  (SAFETY? (5A) GLASS?)
L55
          5077 SEA ABB=ON PLU=ON
                                  (FIRE? (5A) GLASS?)
                           PLU=ON
L56
           2898 SEA ABB=ON
                                  (FIRE? (5A) GLASS?)
L57
           591 SEA ABB=ON
                           PLU=ON
                                   (FIRE? (5A) GLASS?)
L58
           370 SEA ABB=ON
                           PLU=ON
                                  (FIRE? (5A) GLASS?)
     TOTAL FOR ALL FILES
          8936 SEA ABB=ON
L59
                           PLU=ON
                                  (FIRE? (5A) GLASS?)
           149 SEA L44
L60
            0 SEA ABB=ON
                           PLU=ON L60 AND L50
L61
L62
           499 SEA L44
             2 SEA ABB=ON
L63
                           PLU=ON L62 AND L51
L64
            11 SEA L44
             0 SEA ABB=ON
L65
                           PLU=ON L64 AND L52
L66
             0 SEA L44
L67
             O SEA ABB=ON PLU=ON L66 AND L53
     TOTAL FOR ALL FILES
L68
             2 SEA ABB=ON PLU=ON L44 AND L54
               D 1-2 ALL
L69
           149 SEA L44
L70
             O SEA ABB=ON PLU=ON L69 AND L55
L71
           499 SEA L44
L72
             4 SEA ABB=ON PLU=ON L71 AND L56
L73
            11 SEA L44
             O SEA ABB=ON PLU=ON L73 AND L57
L74
L75
             0 SEA L44
L76
             O SEA ABB=ON PLU=ON L75 AND L58
     TOTAL FOR ALL FILES
             4 SEA ABB=ON PLU=ON
L77
                                  L44 AND L59
L78
             O SEA ABB=ON
                          PLU=ON
                                  L70 NOT L61
             4 SEA ABB=ON
L79
                                  L72 NOT L63
                          PLU=ON
             O SEA ABB=ON
L80
                           PLU=ON
                                  L74 NOT L65
L81
             O SEA ABB=ON
                           PLU=ON L76 NOT L67
     TOTAL FOR ALL FILES
L82
             4 SEA ABB=ON
                           PLU=ON L77 NOT L68
               D 1-4 ALL
L83
           149 SEA L44
            2 SEA ABB=ON PLU=ON L83 AND (COAT? (5A) REMOV?)
L84
           499 SEA L44
L85
L86
            14 SEA ABB=ON PLU=ON L85 AND (COAT? (5A) REMOV?)
L87
            11 SEA L44
L88
            O SEA ABB=ON PLU=ON L87 AND (COAT? (5A) REMOV?)
L89
             0 SEA L44
L90
             O SEA ABB=ON PLU=ON L89 AND (COAT? (5A) REMOV?)
     TOTAL FOR ALL FILES
L91
            16 SEA ABB=ON PLU=ON L44 AND (COAT? (5A) REMOV?)
             2 SEA ABB=ON PLU=ON
L92
                                  L84 NOT (L61 OR L78)
            14 SEA ABB=ON PLU=ON L86 NOT (L63 OR L79)
L93
L94
             O SEA ABB=ON PLU=ON L88 NOT (L65 OR L80)
L95
             O SEA ABB=ON PLU=ON L90 NOT (L67 OR L81)
     TOTAL FOR ALL FILES
L96
            16 SEA ABB=ON PLU=ON L91 NOT (L68 OR L82)
L97
            16 FOCUS L96 1-
               D 1-16 ALL RN
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FILE 'USPATFULL, USPAT2' ENTERED AT 16:16:33 ON 10 SEP 2005
L1
           1014 SEA ABB=ON PLU=ON 427/154000-156000/NCL OR 427/389700/NCL
L2
             68 SEA ABB=ON PLU=ON 427/154000-156000/NCL OR 427/389700/NCL
     TOTAL FOR ALL FILES
          1082 SEA ABB=ON PLU=ON 427/154000-156000/NCL OR 427/389700/NCL
L3
L4
           147 SEA ABB=ON PLU=ON L1 AND (?ACRYL? (10A) (?ISOCYANAT? OR
                ?URETHAN?))
L_5
              8 SEA ABB=ON PLU=ON L2 AND (?ACRYL? (10A) (?ISOCYANAT? OR
                ?URETHAN?))
     TOTAL FOR ALL FILES
L6
           155 SEA ABB=ON PLU=ON L3 AND (?ACRYL? (10A) (?ISOCYANAT? OR
                ?URETHAN?))
L7
             74 SEA ABB=ON PLU=ON (L4 AND (ALUMINA? OR SILICA? OR TITANIA?
                OR (OXIDE? (10A) (ALUMINUM OR AL OR SILICON OR SI OR TITANIUM
                OR TI OR ZINC OR ZN OR IRON OR FE))))
L8
             4 SEA ABB=ON PLU=ON (L5 AND (ALUMINA? OR SILICA? OR TITANIA?
                OR (OXIDE? (10A) (ALUMINUM OR AL OR SILICON OR SI OR TITANIUM
                OR TI OR ZINC OR ZN OR IRON OR FE))))
     TOTAL FOR ALL FILES
L9
             78 SEA ABB=ON PLU=ON (L6 AND (ALUMINA? OR SILICA? OR TITANIA?
               OR (OXIDE? (10A) (ALUMINUM OR AL OR SILICON OR SI OR TITANIUM
                OR TI OR ZINC OR ZN OR IRON OR FE)))).
L10
             66 SEA ABB=ON PLU=ON L7 AND GLASS?
L11
             3 SEA ABB=ON PLU=ON L8 AND GLASS?
     TOTAL FOR ALL FILES
L12
            69 SEA ABB=ON PLU=ON L9 AND GLASS?
            20 SEA ABB=ON PLU=ON L1 AND (SAFETY? (5A) GLASS?)
L13
             0 SEA ABB=ON PLU=ON L2 AND (SAFETY? (5A) GLASS?)
L14
     TOTAL FOR ALL FILES
L15
            20 SEA ABB=ON PLU=ON L3 AND (SAFETY? (5A) GLASS?)
             4 SEA ABB=ON PLU=ON L13 AND L7
L16
             0 SEA ABB=ON PLU=ON L14 AND L8
L17
     TOTAL FOR ALL FILES
L18
             4 SEA ABB=ON PLU=ON L15 AND L9
               D 1-4 BIB AB
L19
            13 SEA ABB=ON PLU=ON L1 AND (FIRE? (5A) GLASS?)
             0 SEA ABB=ON PLU=ON L2 AND (FIRE? (5A) GLASS?)
L20
     TOTAL FOR ALL FILES
            13 SEA ABB=ON PLU=ON L3 AND (FIRE? (5A) GLASS?)
L21
L22
            13 SEA ABB=ON PLU=ON L19 NOT L16
L23
             0 SEA ABB=ON PLU=ON L20 NOT L17
    TOTAL FOR ALL FILES
L24
            13 SEA ABB=ON PLU=ON L21 NOT L18
L25
            13 FOCUS L24 1-
               D 1-13 BIB AB
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FILE 'CAPLUS' ENTERED AT 16:45:08 ON 10 SEP 2005
L1
            12 SEA ABB=ON PLU=ON GLASS-MA
               D 1-12 ALL
L2
             O SEA ABB=ON PLU=ON GLAS-MA
L3
             O SEA ABB=ON PLU=ON (GLAS MA)
     FILE 'USPATFULL, USPAT2' ENTERED AT 16:47:48 ON 10 SEP 2005
L4
             3 SEA ABB=ON PLU=ON (GLASS MA)
             0 SEA ABB=ON PLU=ON (GLASS MA)
L5
     TOTAL FOR ALL FILES
L6
             3 SEA ABB=ON PLU=ON (GLASS MA)
               D 1-3 BIB AB
L7
             3 SEA ABB=ON PLU=ON (GLASS-MA)
L8
             O SEA ABB=ON PLU=ON (GLASS-MA)
     TOTAL FOR ALL FILES
L9
             3 SEA ABB=ON PLU=ON (GLASS-MA)
L10
             0 SEA ABB=ON PLU=ON L7 NOT L4
L11
             O SEA ABB=ON PLU=ON L8 NOT L5
     TOTAL FOR ALL FILES
L12
             O SEA ABB=ON PLU=ON L9 NOT L6
L13
             1 SEA ABB=ON PLU=ON (GLAS MA)
L14
             O SEA ABB=ON PLU=ON (GLAS MA)
     TOTAL FOR ALL FILES
L15
             1 SEA ABB=ON PLU=ON (GLAS MA)
               D BIB AB
L16
             1 SEA ABB=ON PLU=ON (GLAS-MA)
L17
             0 SEA ABB=ON PLU=ON (GLAS-MA)
     TOTAL FOR ALL FILES
             1 SEA ABB=ON PLU=ON
L18.
                                  (GLAS-MA)
             0 SEA ABB=ON PLU=ON L16 NOT L13
L19
L20
             O SEA ABB=ON PLU=ON L17 NOT L14
     TOTAL FOR ALL FILES
L21
             O SEA ABB=ON PLU=ON L18 NOT L15
     FILE 'REGISTRY' ENTERED AT 16:49:33 ON 10 SEP 2005
L22
            0 SEA ABB=ON PLU=ON GLAS MA/CN
L23
             O SEA ABB=ON PLU=ON (GLAS MA)/CN
L24
             O SEA ABB=ON PLU=ON (GLAS-MA)/CN
L25
             0 SEA ABB=ON PLU=ON (GLASS-MA)/CN
L26
             0 SEA ABB=ON PLU=ON (GLASS MA)/CN
```

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ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
AN
     1985:438787 CAPLUS
DN
     103:38787
ED
     Entered STN: 10 Aug 1985
TI
     Abrasion-resistant coating compositions
     Hitachi, Ltd., Japan; Dainichiseika Color and Chemicals Mfg. Co., Ltd.
PA
     Jpn. Kokai Tokkyo Koho, 5 pp.
SO
     CODEN: JKXXAF
DT
     Patent
T.A
     Japanese
IC
     ICM C09D007-12
     ICS C08J007-04; C09D005-00; C09D011-02
CC
     42-10 (Coatings, Inks, and Related Products)
FAN.CNT 1
     PATENT NO.
                        KIND DATE
                                           APPLICATION NO.
                              -----
                                           -----
     ----<del>----</del>
                        ____
     JP 60023462
                        A2 19850206
ΡĪ
                                           JP 1983-132543
                                                                19830720 <--
PRAI JP 1983-132543
CLASS
              CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
               ICM
                      C09D007-12
                ICS
                      C08J007-04; C09D005-00; C09D011-02
     The compns., which give coatings having high hardness are prepared by adding
     powdered natural glass (average particle size .apprx.1-50 \mu) mainly composed
     of SiO2 and Al2O3 to coating compns. Displays, lights, plastic sheets,
     etc. are protected by the (semi)transparent coatings. Thus, an organic
     solvent was added to a paste type premix of MTK (SiO2-Al2O3 natural glass
     powder of average particle size .apprx.5 \mu), epoxy acrylate oligomer,
     urethane acrylate oligomer, and benzyl di-Me ketal to give a coating
     composition which was spray coated on a transparent polystyrene [9003-53-6]
     sheet (for display), the solvent was removed, and the coating was
     irradiated with UV to give a coating having pencil hardness 5H, 60°
     mirror reflectivity 15%, and light transmittance 90% compared to H, 100%,
     and 91% for a coating-free polystyrene sheet.
ST
     abrasion resistance transparent coating; silica alumina glass coating;
     display abrasion resistant coating
     Coating materials
IT
        (abrasion-resistant, transparent, containing powdered glass, for
polystyrene)
IT
     Glass, oxide
     RL: USES (Uses)
        (powdered, abrasion-resistant transparent coating compns. containing, for
        polystyrene)
ΙT
     9003-53-6
     RL: USES (Uses)
        (abrasion-resistant coating compns. for, containing powdered glass)
IT
     126-58-9 15625-89-5 29570-58-9
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, containing powdered glass, for polystyrene, abrasion-resistant
        transparent)
     9003-53-6
RN
     126-58-9
RN
RN
     15625-89-5
RN
     29570-58-9
     ANSWER 2 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN
     1985-070576 [12] WPIX
DNC C1985-030577
TΙ
     Abrasion resistant resin coating compsn. - containing powdery natural glass
     containing silica and alumina.
```

```
DC
     A28 A82 G02
     (DAIC) DAINICHISEIKA COLOR & CHEM MFG; (HITA) HITACHI LTD
PA
CYC
PΤ
     JP 60023462
                     A 19850206 (198512)*
                                                 5
ADT JP 60023462 A JP 1983-132543 19830720
PRAI JP 1983-132543
                          19830720
     C08J007-04; C09D005-00; C09D007-12; C09D011-02
AB
        60023462 A UPAB: 19930925
     Compsn. is prepared by adding (A) powder of natural glass, having ave.
     particle dia. ca. 1-50 micron, to (B) coating mixture The natural glass
     comprises SiO2 and Al2O3 as the main components.
          Pref. mixture (B) is a photo-curing ink. Pref. (B) include alkyd resin
     coating, various kinds of modified alkyd resin coating, phenol resin
     coating, epoxy resin coating, silicone resin coating, etc. The
     photo-curing ink pref. comprises photo-curing resin, photo-polymerisation
     initiator, additives, etc.
          USE/ADVANTAGE - Compsn. forms a transparent or semi-transparent
     coated film having high surface hardness and good optical properties.
     Compsn. is useful for forming a protective film on e.g. plastics, metallic
     or wooden prods.
     0/0
FS
     CPI
FΑ
MC
     CPI: A08-R04; A12-B01; G02-A03; G02-A05
1.4
     ANSWER 3 OF 3 JAPIO (C) 2005 JPO on STN
ΑN
     1985-023462
                    JAPIO
TI ·
    ABRASION-RESISTANT COATING COMPOSITION
IN
    YUYA ISAO; TAKEZAWA NOBUO; OKAWA MASANARI
PΑ
     DAINICHI SEIKA KOGYO KK
PΙ
     JP 60023462 A 19850206 Showa
     JP 1983-132543 (JP58132543 Showa) 19830720
PRAI JP 1983-132543
                         19830720
     PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1985
IC
     ICM C09D007-12
          C08J007-04; C09D005-00; C09D011-02
AB
     PURPOSE: To provide the titled composition having excellent surface
     hardness and suitable for the protective coating of plastic parts of e.g.
     various electrical appliances, household articles, etc., by adding natural
     glass powder composed mainly of SiO<SB>2</SB> and A1<SB>2</SB>O<SB>3</SB>
     and having a specific particle diameter to a paint composition.
     CONSTITUTION: The objective composition is obtained e.g. by mixing (A)
     1∼ 100pts weight of natural glass powder having an average particle
     diameter of 1∼ 50μ and composed mainly of (i) 70wt% SiO<SB>2</SB>
     and (ii) 15% Al<SB>2</SB>0<SB>3</SB> in (B) 100pts.weight of a paint
     composition (e.g. photo-setting ink).
     EFFECT: A coating film having excellent optical properties can be applied
     to a plastic part having transparent surface.
     USE: Protective coating of plastic parts of automobiles, displays of
     various game machines, etc.
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